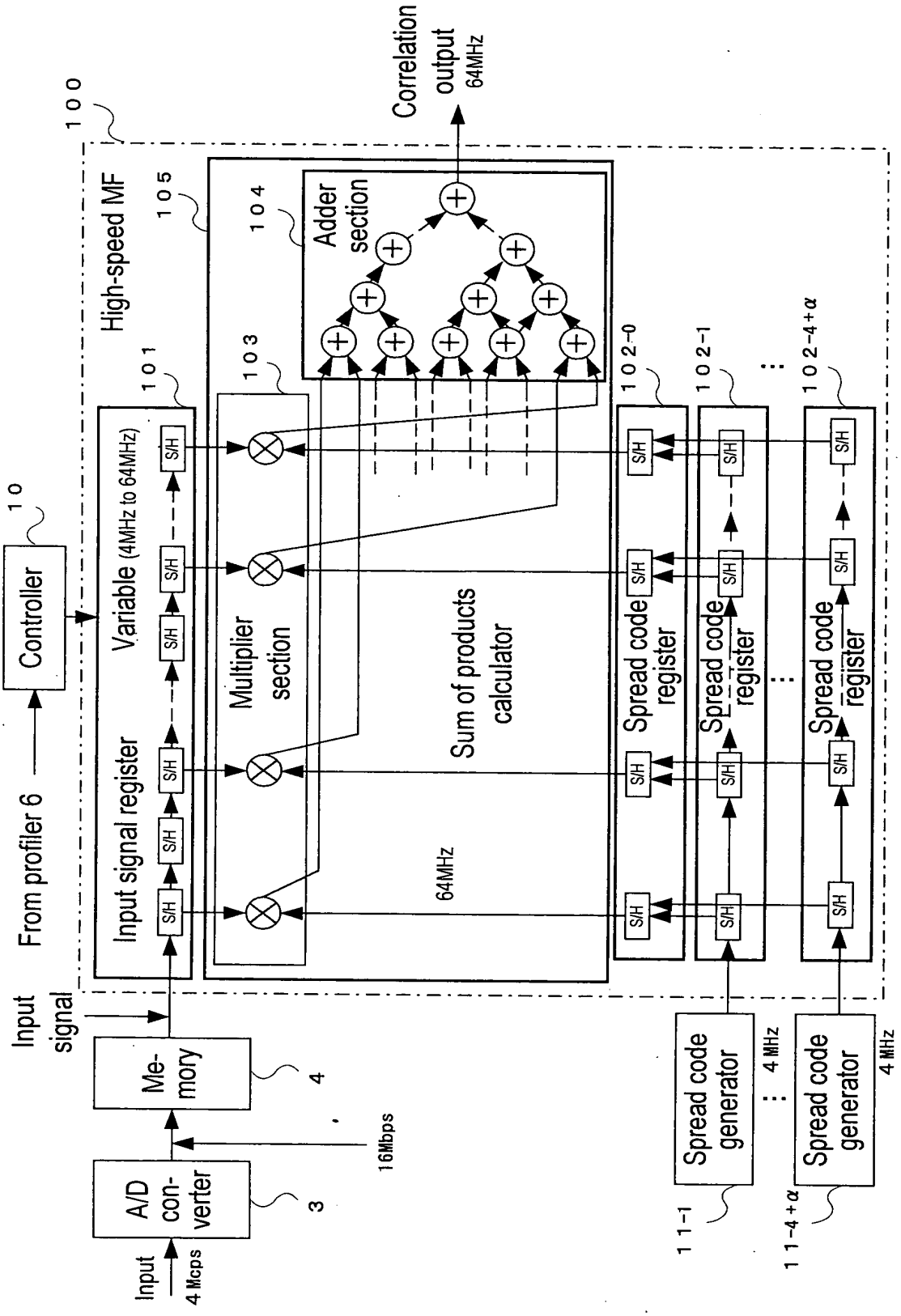
FIG.1


Input
4 Mcps
A/D con-verter
3
16Mbps
Me-mory
4
Input signal
From profiler 6
Controller
10
100
High-speed MF
Input signal register
Variable (4MHz to 64MHz)
101
S/H
Multiplier section
103
105
Sum of products calculator
64MHz
Adder section
104
Correlation output
64MHz
Spread code register
102-0
102-1
102-4+α
Spread code generator
11-1
11-4+α
4 MHz

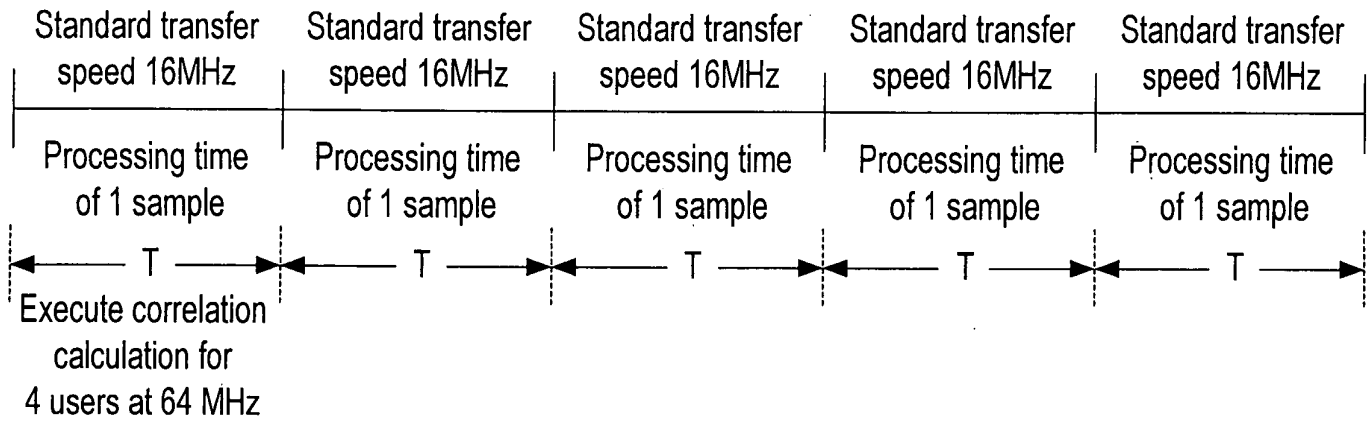

Standard transfer speed 16MHz
Standard transfer speed 16MHz
Standard transfer speed 16MHz
Standard transfer speed 16MHz
Standard transfer speed 16MHz
Processing time of 1 sample
Processing time of 1 sample
Processing time of 1 sample
Processing time of 1 sample
Processing time of 1 sample
T
T
T
T
T
Execute correlation calculation for 4 users at 64 MHz

FIG.2A

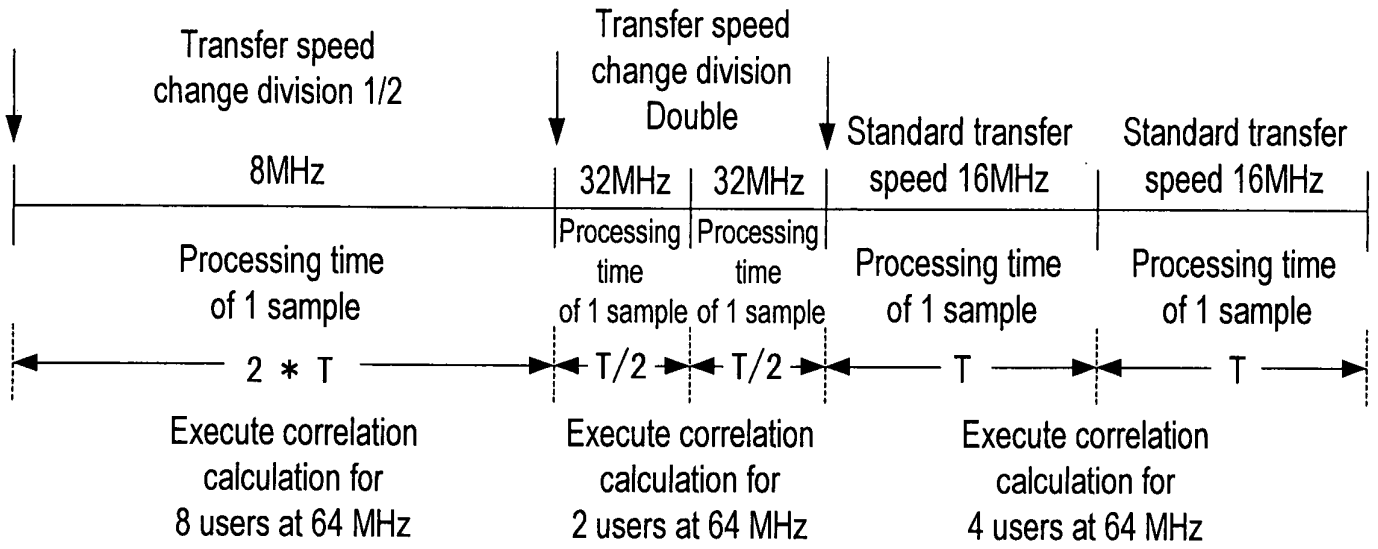

Transfer speed change division 1/2
Transfer speed change division Double
8MHz
32MHz
32MHz
Standard transfer speed 16MHz
Standard transfer speed 16MHz
Processing time of 1 sample
Processing time of 1 sample
Processing time of 1 sample
Processing time of 1 sample
Processing time of 1 sample
2 * T
T/2
T/2
T
T
Execute correlation calculation for 8 users at 64 MHz
Execute correlation calculation for 2 users at 64 MHz
Execute correlation calculation for 4 users at 64 MHz

FIG.2B

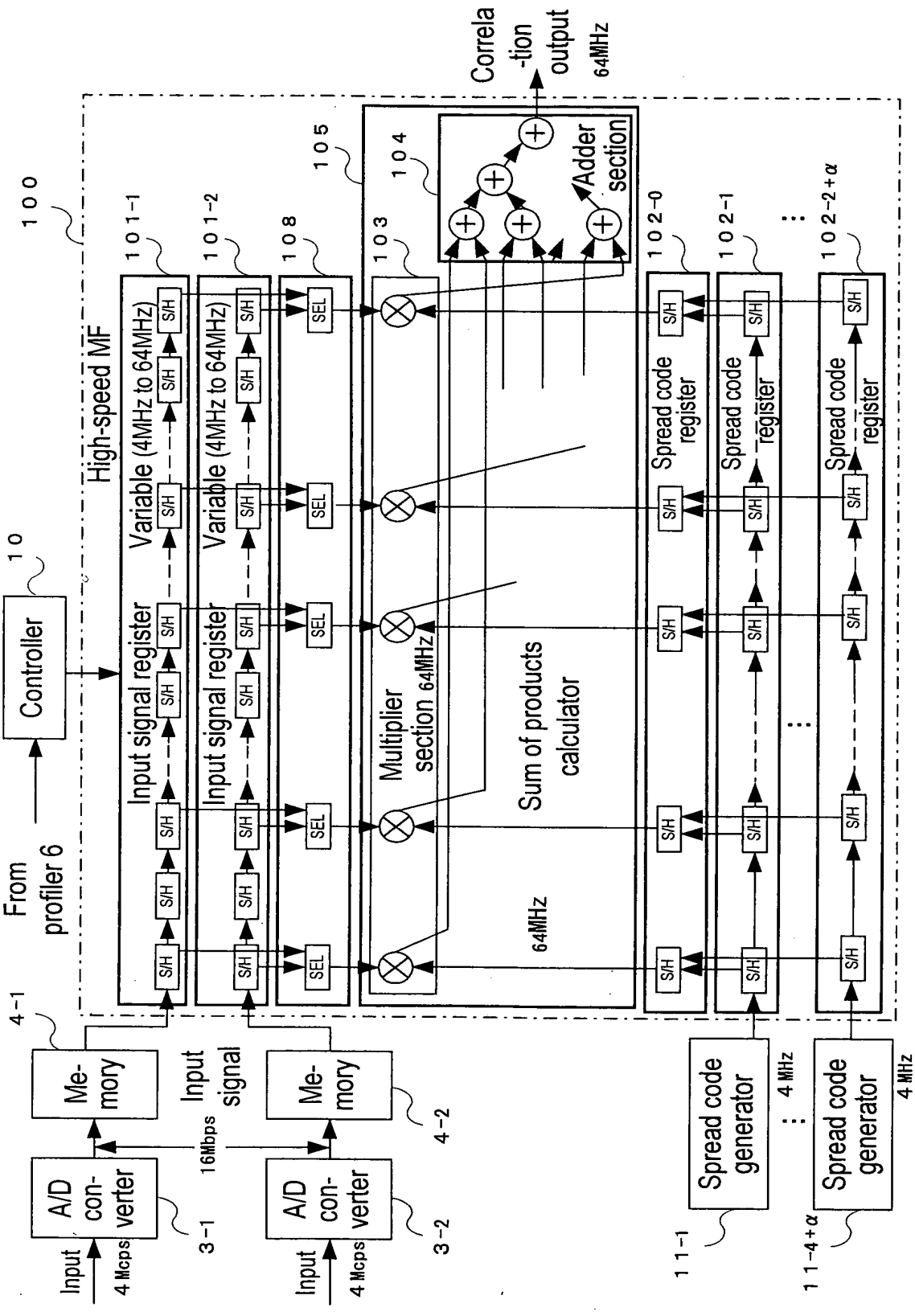
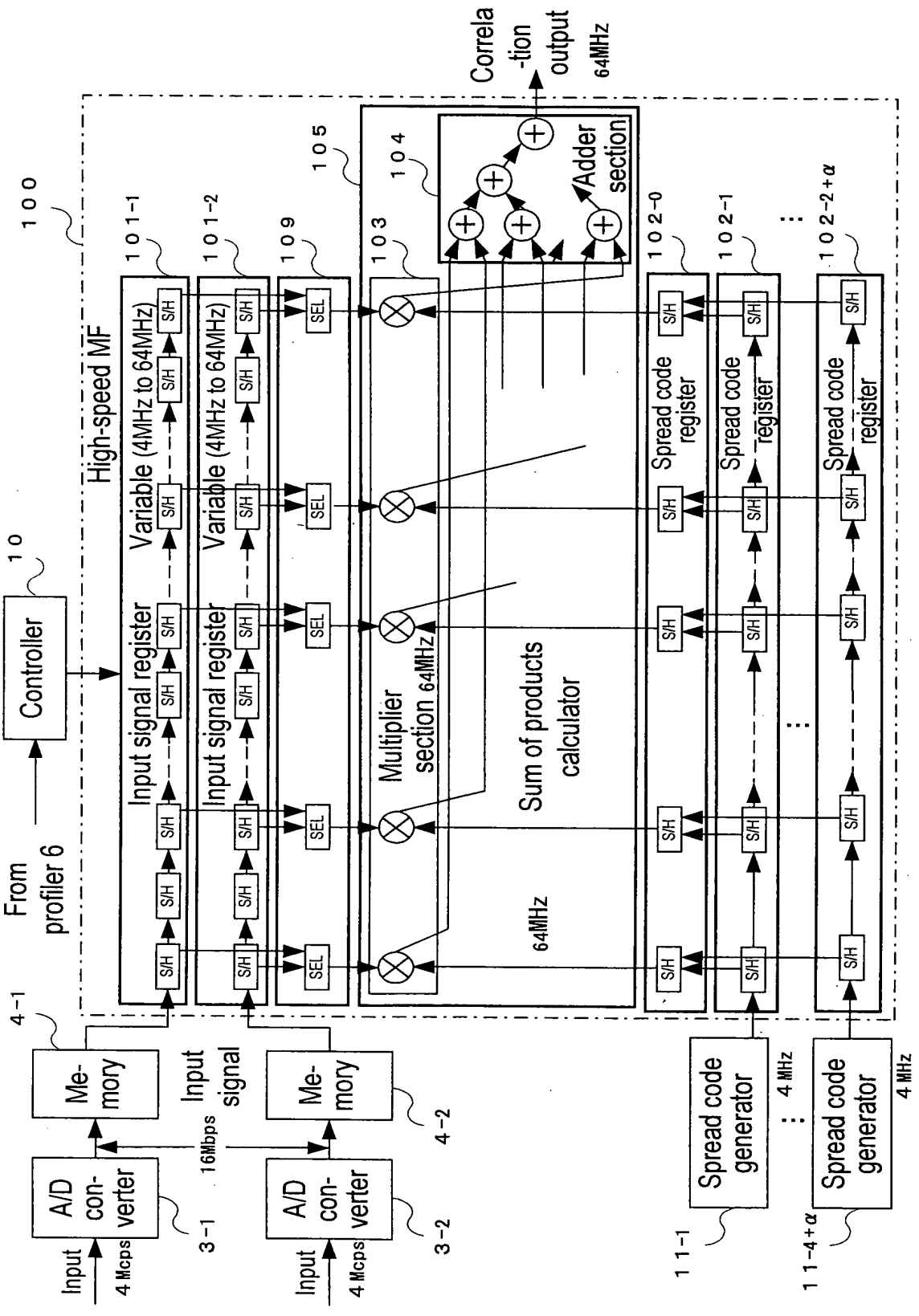

100
High-speed MF
10
Controller
From profiler 6
101-1
101-2
Variable (4MHz to 64MHz)
Input signal register
S/H
108
SEL
103
Multiplier section 64MHz
64MHz
105
104
Adder section
Correla -tion output 64MHz
Sum of products calculator
102-0
102-1
102-2+α
Spread code register
4-1
4-2
Me-mory
Input signal
16Mbps
3-1
3-2
A/D con-verter
Input 4 Mcps
111-1
111-4+α
Spread code generator
4 MHz

FIG.4


100
High-speed MF
Controller
10
From profiler 6
Input signal register
Variable (4MHz to 64MHz)
101-1
101-2
109
105
103
104
Multiplier section 64MHz
Sum of products calculator
64MHz
Adder section
Correla -tion output 64MHz
102-0
102-1
102-2+α
Spread code register
S/H
SEL
4-1
4-2
Me-mory
Input signal
16Mbps
A/D con-verter
3-1
3-2
Input 4 Mcps
Spread code generator
4 MHz
111-1
111-4+α

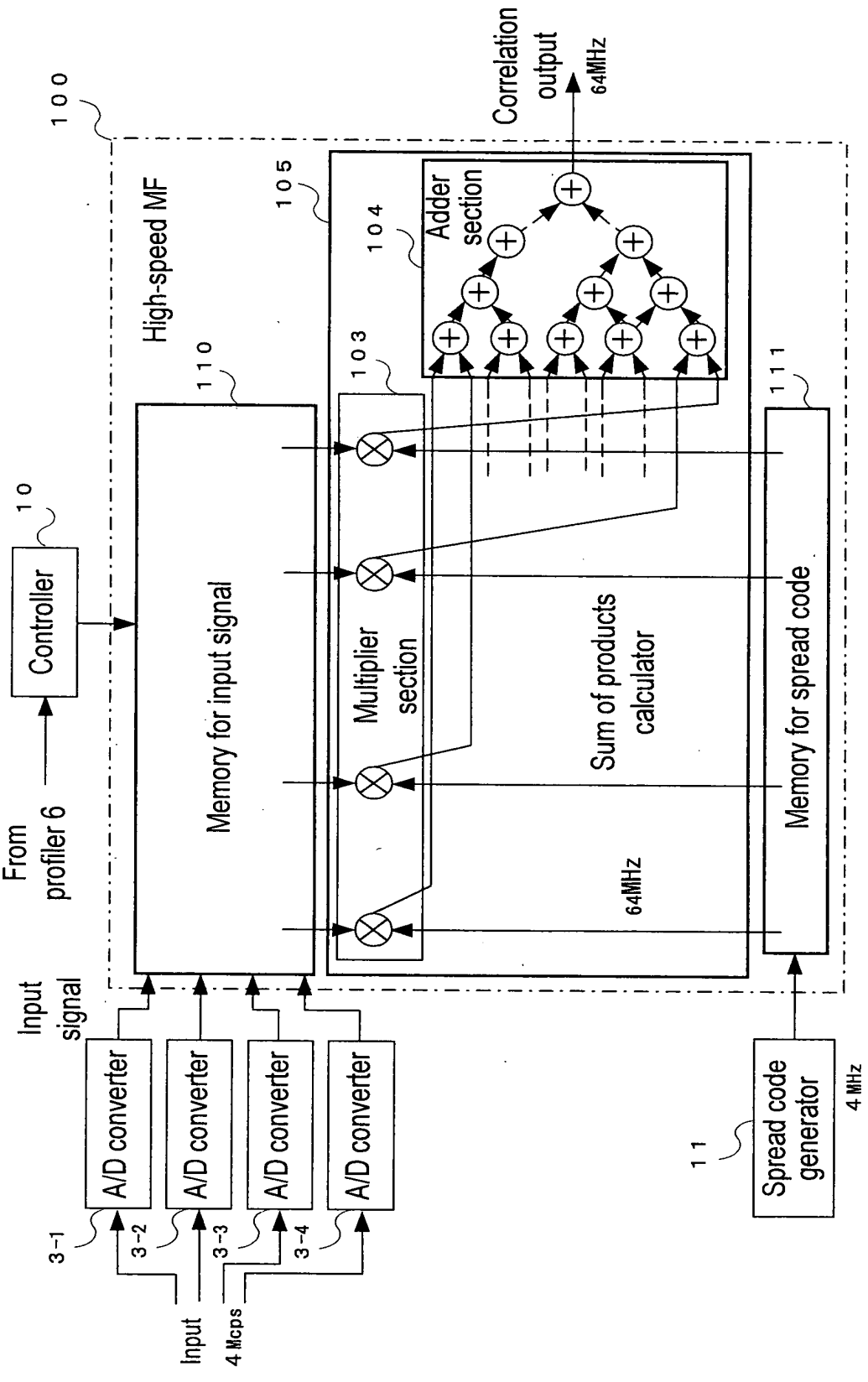
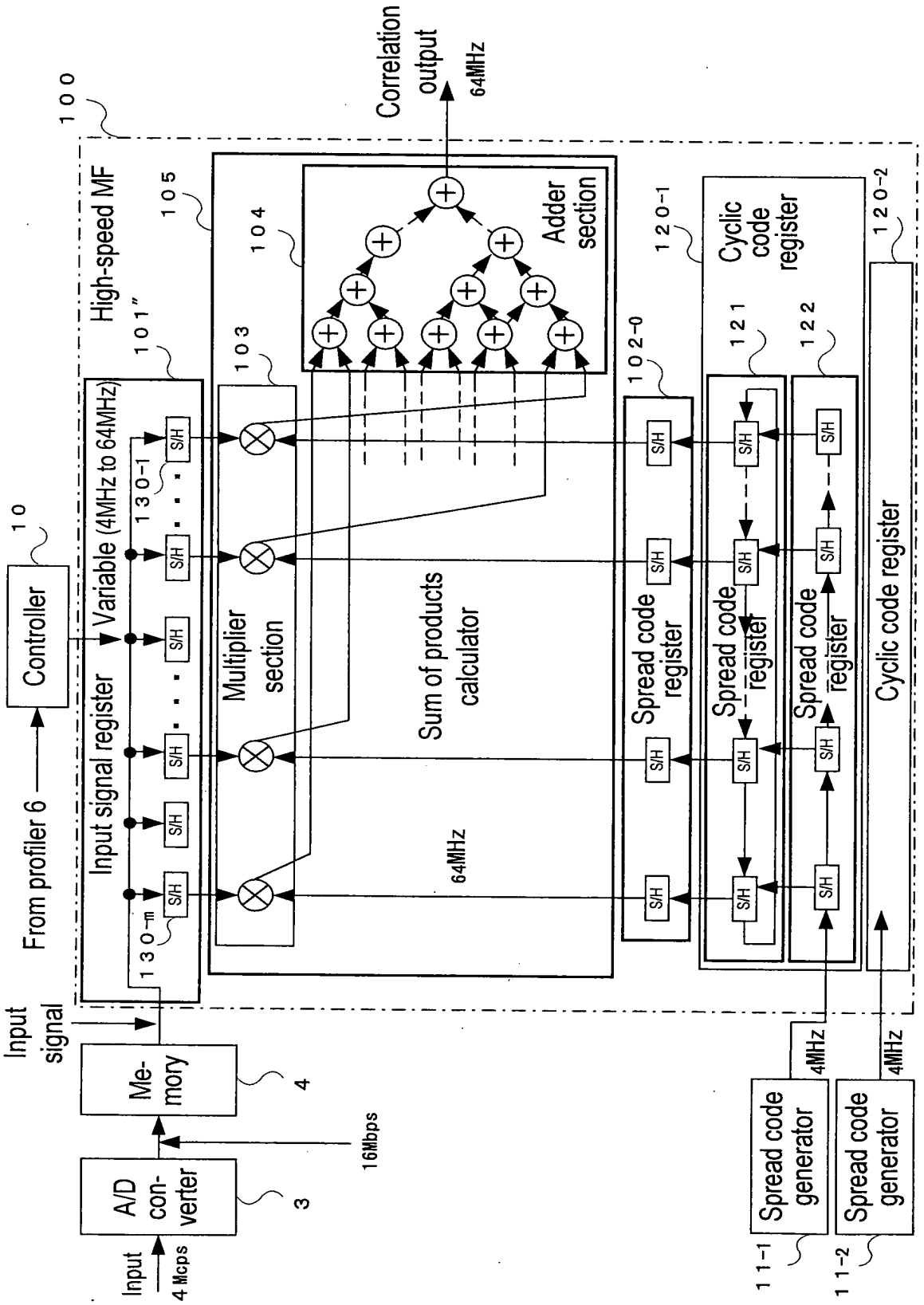

100
High-speed MF
105
104
Adder section
Correlation output
64MHz
110
103
111
10
Controller
Memory for input signal
Multiplier section
Sum of products calculator
Memory for spread code
From profiler 6
64MHz
Input signal
A/D converter
A/D converter
A/D converter
A/D converter
3-1
3-2
3-3
3-4
Input
4 Mcps
11
Spread code generator
4 MHz

FIG.6


100
High-speed MF
101″
105
104
Adder section
Correlation output
64MHz
103
Multiplier section
Sum of products calculator
64MHz
102-0
120-1
Cyclic code register
121
122
Spread code register
Spread code register
Spread code register
120-2
Cyclic code register
Input signal register
Variable (4MHz to 64MHz)
130-1
130-m
S/H
Controller
10
From profiler 6
Input signal
Memory
4
16Mbps
A/D converter
3
Input
4 Mcps
Spread code generator
4MHz
11-1
Spread code generator
4MHz
11-2

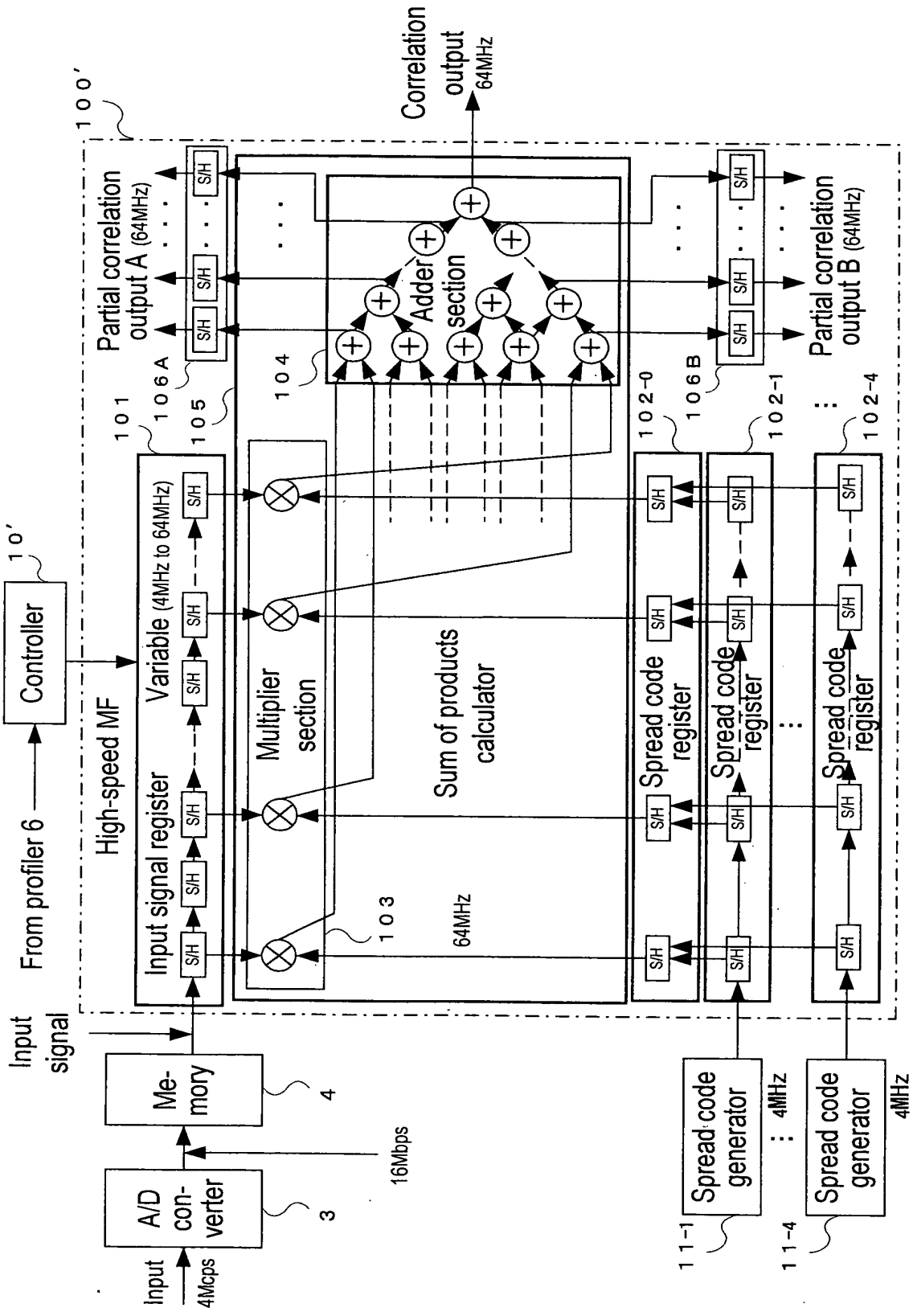

Input
4Mcps
A/D con-verter
3
16Mbps
Me-mory
4
Input signal
From profiler 6
Controller
10'
100'
High-speed MF
Input signal register
Variable (4MHz to 64MHz)
S/H
101
106A
105
Partial correlation output A (64MHz)
Multiplier section
103
64MHz
Sum of products calculator
104
Adder section
Correlation output 64MHz
102-0
102-1
102-4
106B
Partial correlation output B (64MHz)
Spread code register
Spread code generator
4MHz
11-1
11-4

FIG.8

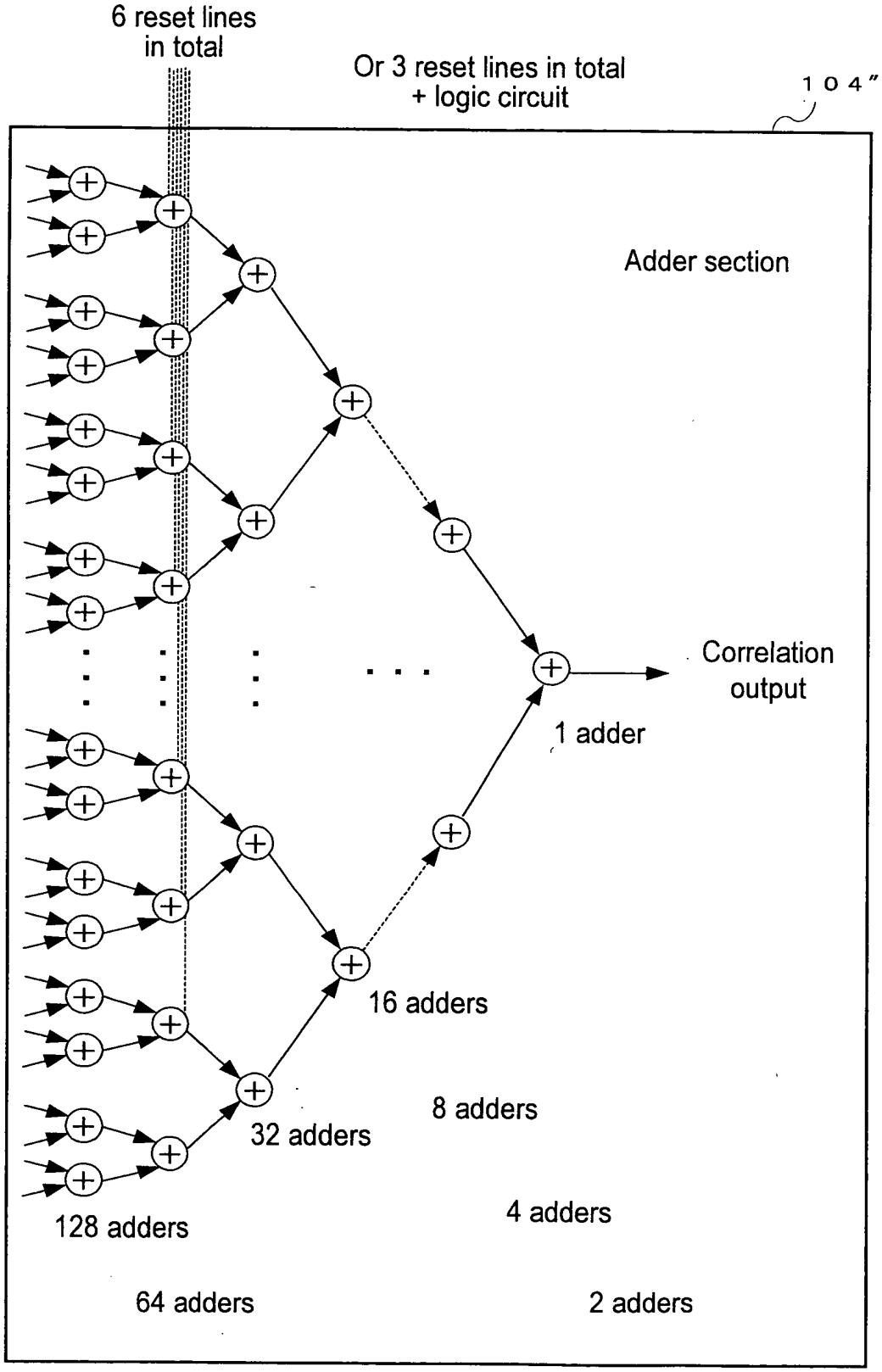


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FIG.9

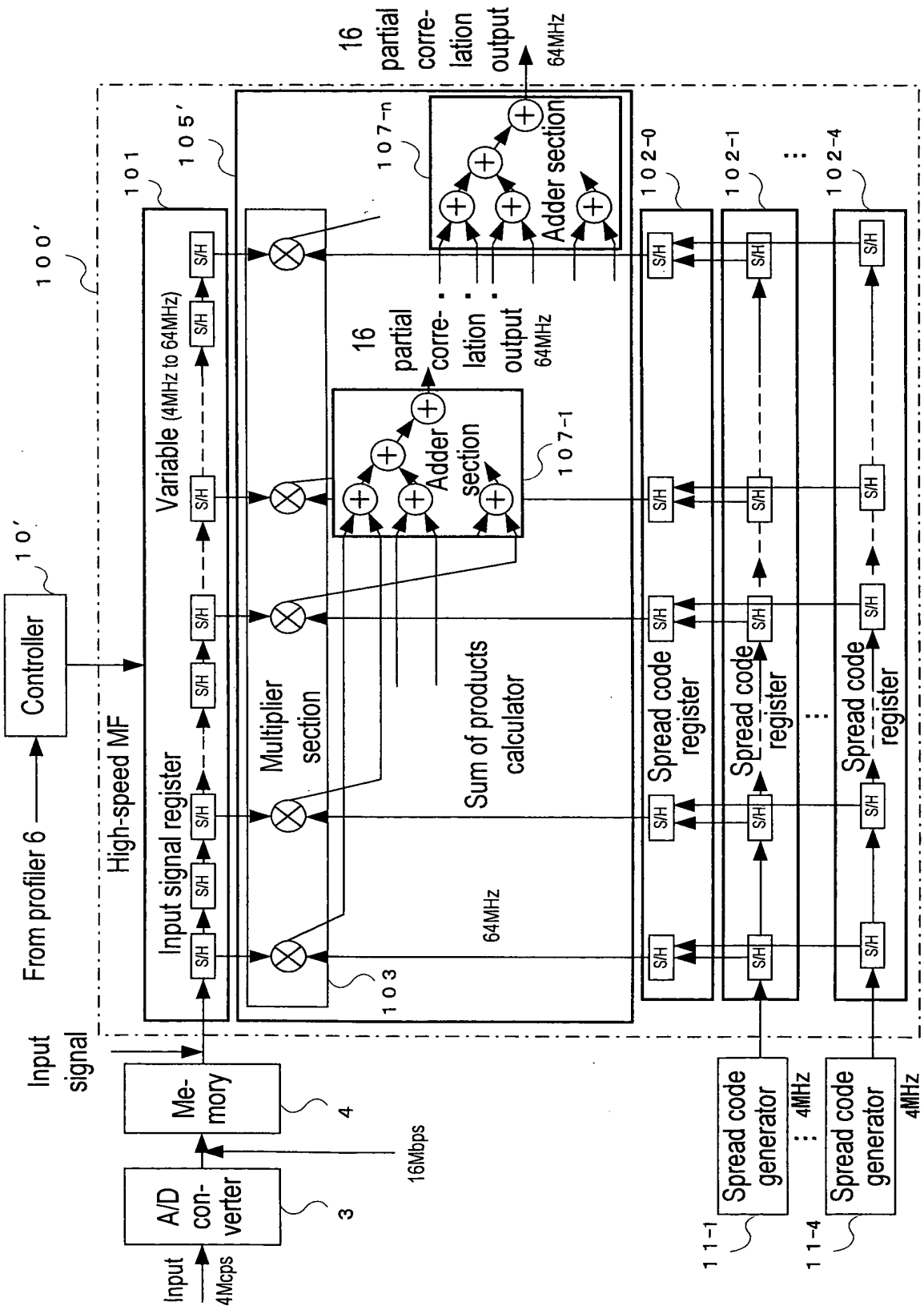
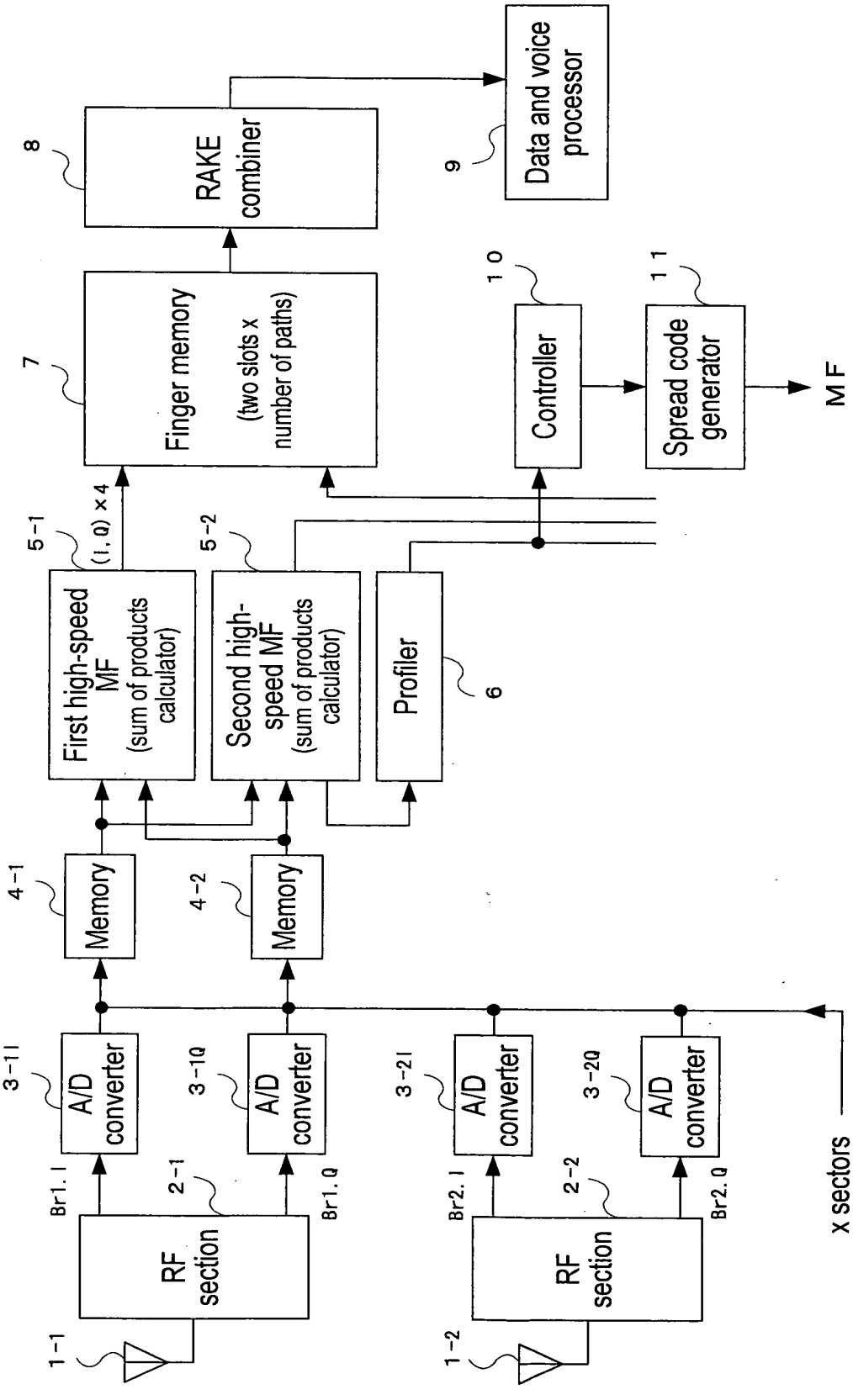

Input signal
Input
4Mcps
A/D converter
3
Memory
4
16Mbps
From profiler 6
Controller
10'
High-speed MF
100'
101
Input signal register
Variable (4MHz to 64MHz)
105'
S/H
Multiplier section
103
Sum of products calculator
64MHz
16 partial correlation output
64MHz
107-n
Adder section
16 partial correlation output
64MHz
107-1
Adder section
102-0
102-1
102-4
Spread code register
Spread code generator
4MHz
11-1
11-4

FIG.10


1-1
1-2
RF section
RF section
2-1
2-2
Br1. I
Br1. Q
Br2. I
Br2. Q
3-1I
3-1Q
3-2I
3-2Q
A/D converter
A/D converter
A/D converter
A/D converter
4-1
4-2
Memory
Memory
5-1
5-2
(I, Q) × 4
First high-speed MF (sum of products calculator)
Second high-speed MF (sum of products calculator)
Profiler
6
7
Finger memory (two slots x number of paths)
8
RAKE combiner
9
Data and voice processor
10
Controller
11
Spread code generator
MF
x sectors